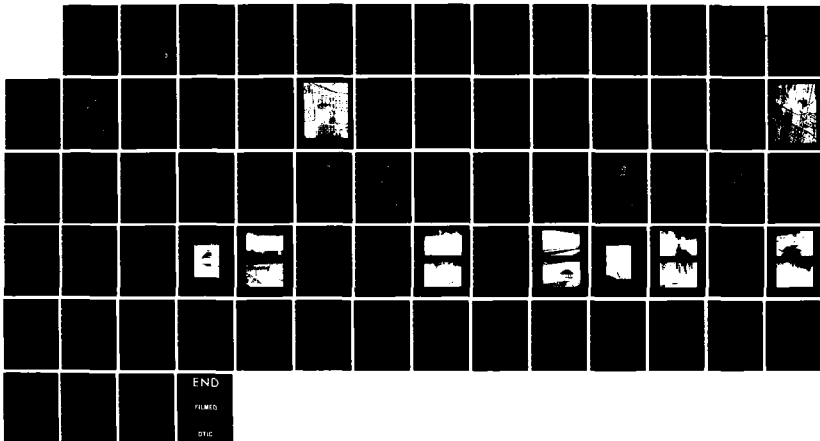


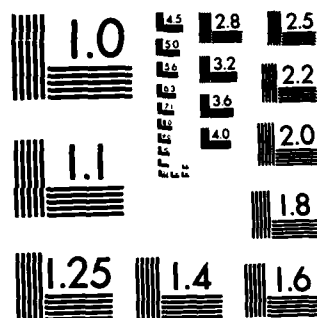
A CULTURAL RESOURCE SURVEY OF SPRINGFIELD CANAL CHATHAM 1/1
COUNTY GEORGIA(U) SOUTHEASTERN ARCHEOLOGICAL SERVICES
INC ATHENS GA C B DEPRATTER ET AL. 17 SEP 84
DACW21-84-M-0314 F/G 5/6 NL

UNCLASSIFIED

F/G 5/6

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

12

AD-A148 602

A CULTURAL RESOURCE SURVEY
OF SPRINGFIELD CANAL
CHATHAM COUNTY, GEORGIA

CHESTER B. DePRATTER
ROY R. DOYON

DTIC FILE COPY

DTIC
ELECTE
DEC 17 1984
S D E

SOUTHEASTERN ARCHEOLOGICAL SERVICES, INC.

Athens, Georgia

84 . 12 06 075

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. <i>AM8602</i>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) A Cultural Resource Survey of Springfield Canal, Chatham County, Georgia		5. TYPE OF REPORT & PERIOD COVERED Final
7. AUTHOR(s) Chester B. DePratter Roy R. Doyon		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Southeastern Archeological Services, Inc. P.O. Drawer 8086 Athens, Georgia 30603		8. CONTRACT OR GRANT NUMBER(s) DACW21-84-M-0314
11. CONTROLLING OFFICE NAME AND ADDRESS SASPD-EI U.S. Army Corps of Engineers, Savannah District P.O. Box 889 Savannah, Georgia 31402-0889		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE 17 September 1984
		13. NUMBER OF PAGES 75
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for Public Release; distributed unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Archaeology Mosquito borne diseases Canals Georgia History Diseases		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Research on the Springfield Canal project, Chatham County, Georgia, consisted of a historic documents search and an archeological survey. The project area is on the western fringes of the city of Savannah in lowlands once drained by Musgrove Creek and its tributaries. The present Springfield Canal is the result of incremental development over a period of 150 years.		

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

A 200-foot-wide corridor along the existing 4.7-mile-long canal right-of-way was surveyed. No prehistoric sites were encountered during the field survey, but several significant historical features were identified.

A segment of the Savannah and Ogeechee Canal channel now occupied by the Springfield Canal represents a significant episode in the history and development of the city of Savannah. That canal segment contains remains of two brick locks constructed between 1824 and 1831. Both the locks and the intervening canal segment should be considered eligible for nomination to the National Register of Historic Places. Two brick Central of Georgia Railroad viaducts (constructed in 1852 and 1859, respectively) cross this canal segment. These viaducts are within and part of the Central of Georgia Railroad Savannah Shops and Terminal Facilities, a Historic Landmark District. 7

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

A CULTURAL RESOURCE SURVEY
OF SPRINGFIELD CANAL
CHATHAM COUNTY, GEORGIA

In Fulfillment of
PURCHASE ORDER NO. DACW21-84-M-0314

Submitted to
U.S. Army Corps of Engineers
Planning Division
Environmental Resources Branch
P.O. Box 889
Savannah, Georgia 31402

by
Chester B. DePratter
and
Roy Doyon



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Southeastern Archeological Services, Inc.
595 N. Milledge Ave.
P.O. Drawer 8086
Athens, Georgia 30603

17 September 1984

A CULTURAL RESOURCE SURVEY
OF SPRINGFIELD CANAL
CHATHAM COUNTY, GEORGIA

Prepared Under the Supervision of

Chester B. DePratter

Chester B. DePratter
Principal Investigator

TABLE OF CONTENTS

	Page
List of Figures	iv
Abstract	vi
Management Summary	vii
Introduction	1
Research Design	3
Historical Background	5
Development of the Plantation Economy	7
Dry Culture: A Transitional Period	9
The Savannah and Ogeechee Canal and the Central Railroad	10
The Commercial and Industrial Era	17
Development of Springfield Canal	18
Laurel Grove Cemetery	28
Archeological Survey	29
Project Evaluation and Recommendations	43
References Cited	45
Appendix A: Prehistoric Overview	49
Appendix B: Vitae of Key Personnel	60

LIST OF FIGURES

Figure	Page
1. Springfield Canal Project Area showing present extent of Springfield Canal	2
2. Portion of John M. Cooper's 1856 "Map of the City of Savannah"	6
3. Part of Augustus Koch's 1891 "Bird's Eye View of the City of Savannah." View to South from Savannah River	14
4. Musgrove Creek as shown on "Map of the City of Savannah," by Col. Mossman Houstoun, c.1812	20
5. Musgrove Creek and Stiles Canal as shown on map entitled "City of Savannah," by John McKinnon, 1825	21
6. Springfield Canal and Savannah and Ogeechee Canal as shown on "Map of the City of Savannah, Ga.," by J. B. Hogg, 1876	25
7. Springfield Canal and Savannah and Ogeechee Canal as shown on "Map of the City of Savannah," by J. Gardner, 1914	27
8. View north along former Savannah and Ogeechee Canal from top of Central of Georgia Railroad overpass at Louisville Road	32
9a. Wooden bulkhead along west bank of former Savannah and Ogeechee Canal north of Louisville Road	33
b. Brick-lined canal segment between Lock #1 and Savannah River on former Savannah and Ogeechee Canal	33
10. Plan of Lock #2, or Gay's Lock, at junction of Springfield Canal and Savannah and Ogeechee Canal	35
11a. View of Lock #2 complex on Savannah and Ogeechee Canal as seen from north. Three brick conduits carried the water of the Springfield Canal under this lock	36
11b. Portion of Lock #2 as seen from south	36

12a.	South side of brick arch viaduct adjacent to Louisville Road; constructed 1852	38
b.	South side of brick arch viaduct 400 feet north of Louisville Road; constructed 1859	38
13.	Construction detail of brick arch viaduct adjacent to Louisville Road; constructed 1852	39
14a.	View north along Springfield Canal from Gwinett Street	40
b.	Laurel Grove Cemetery (south). Springfield Canal is immediately behind photographer	40
15a.	Ogeechee Road bridge as seen from Victory Drive	42
b.	Springfield Canal south of 52nd Street	42

ABSTRACT

Research on the Springfield Canal project, Chatham County, Georgia, consisted of a historic documents search and an archeological survey. The project area is on the western fringes of the city of Savannah in lowlands once drained by Musgrove Creek and its tributaries. The present Springfield Canal is the result of incremental development over a period of 150 years.

A 200-foot-wide corridor along the existing 4.7-mile-long canal right-of-way was surveyed. No prehistoric sites were encountered during the field survey, but several significant historical features were identified.

A segment of the Savannah and Ogeechee Canal channel now occupied by the Springfield Canal represents a significant episode in the history and development of the City of Savannah. That canal segment contains remains of two brick locks constructed between 1824 and 1831. Both the locks and the intervening canal segment should be considered eligible for nomination to the National Register of Historic Places. Two brick Central of Georgia Railroad viaducts (constructed in 1852 and 1859, respectively) cross this canal segment. These viaducts are within and part of the Central of Georgia Railroad Savannah Shops and Terminal Facilities, a Historic Landmark District.

MANAGEMENT SUMMARY

A cultural resources survey of the Springfield Canal, Chatham County, Georgia, was conducted by Southeastern Archeological Services, Inc. from 3 to 17 February 1984. Chester B. DePratter served as Principal Investigator. Field investigations were conducted by W. Dean Wood, Chad O. Braley, Thomas H. Gresham, Osman Mohammed, and Hussein Ahmed. Archival research was conducted by Roy Doyon and Chester B. DePratter during the same period.

Historical investigations relating to Springfield Canal have involved use of records and maps at the offices of the Savannah and Chatham County Engineers, the Chatham County Courthouse, the Savannah Public Library, the Georgia Historical Society, and the University of Georgia Library.

The 4.7-mile-long Springfield Canal project area passes through lowland swamps, residential neighborhoods, and the heavily developed industrial section on the western edge of Savannah. Archeological investigations consisted of a walk-over survey conducted by crews ranging from two to five members. Exposed banks of the canal were checked at low tide. In addition, disturbed and other exposed areas within the 60 m wide project corridor were also checked for evidence of significant prehistoric and historic sites. A number of posthole tests were excavated in an attempt to locate buried sites.

No prehistoric sites were found within the project corridor during the field investigations. The State of Georgia

Archeological Site Files lists no sites within the Springfield Canal Project corridor.

The Springfield Canal, north of Louisville Road, follows the course of the Savannah and Ogeechee Canal, which was excavated between 1824 and 1840. This canal segment is delimited by an intact brick lock at the junction of the canal and the Savannah River and a partially intact second lock located just south of the Louisville Road. This second lock is at the point where the Savannah and Ogeechee Canal passed over the original Springfield Canal. Between these two locks, the Savannah and Ogeechee Canal was broad, serving as a docking and loading basin for the canal. At the northern end of this portion of the canal, remains of a wooden bulkhead are visible along the west side of the canal at low tide. Much of the east bank of this part of the canal has been encroached upon by recent filling activities, which may cover sunken barges or ships, although no evidence of the presence of such wrecks was observed during the present survey. Despite the fact that the basin is partially filled and is crossed by numerous bridges, that portion of the Savannah and Ogeechee/Springfield Canal located north of Louisville Road and the locks at either end should be considered eligible for nomination to the National Register of Historic Places. Two mid-nineteenth century railroad viaducts, which cross this segment of the canal, are also important features of this area. These viaducts are part of the Central of Georgia Railroad Savannah Shops and Terminal Facilities, a Historic Landmark District.

One other canal segment could adversely impact a known cultural resource. The southern section of Laurel Grove Cemetery, on the east side of the canal, contains many Black burials placed

in low-lying areas during the late-19th century. Some of those may extend into the eastern portion of the Springfield Canal Corridor.

If improvements to the canal involve land modifications outside of the canal prism, then certain measures should be taken. In the Laurel Grove Cemetery, monitoring of the operation should be considered since human interments might be disturbed. From the intersection of the Springfield Canal and Savannah and Ogeechee Canal, north to the Savannah River there are several sensitive locations. These include the two locks, the wooden bulkheads, the two railroad bridges, and the canal basin itself. This section of the project area is potentially eligible to the National Register because it is the only surviving example of the Savannah and Ogeechee Canal in the Savannah area. It is also associated to some degree with the Savannah Revolutionary Battlefield Park National Landmark District to the east.

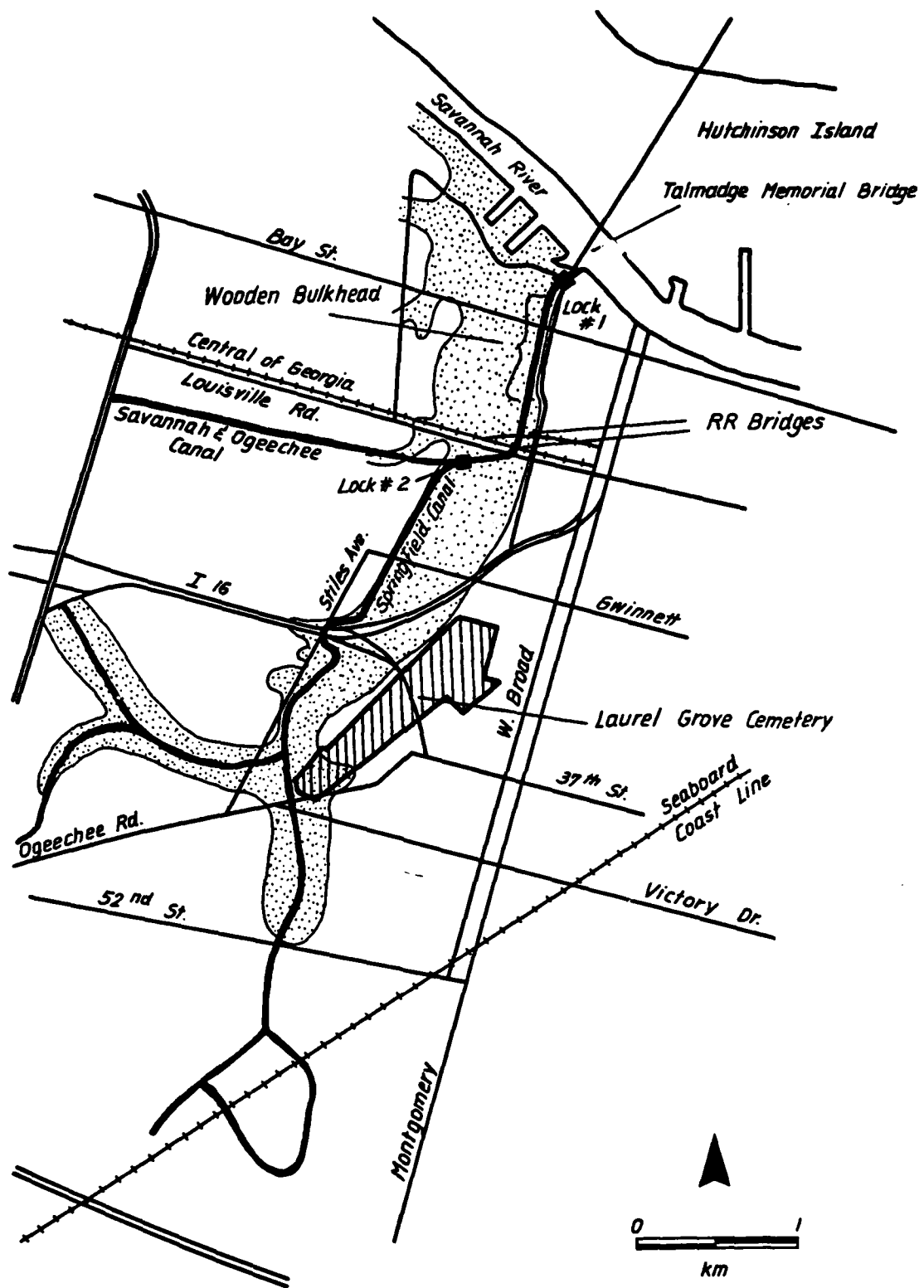
With the exception of the area near the Laurel Grove Cemetery, no other portions of the Springfield Canal project area are worthy of listing on the National Register. The Springfield Canal figured prominently in the development of western Savannah, but extensive modification of the canal from continuous maintenance by the city has altered the integrity of these portions of the canal.

INTRODUCTION

This report details the results of a cultural resources survey and evaluation of the Springfield Canal right-of-way in Chatham County, Georgia (Figure 1). The 4.7-mile-long canal, including branches, runs through the heavily developed fringes of the City of Savannah and enters the Savannah River beneath the Talmadge Memorial Bridge. The canal drains an area of low-lying swamps that were formerly drained by Musgrove Creek.

The survey project was conducted under contract with the U.S. Army Corps of Engineers, Savannah District, to meet the requirements of the National Historic Preservation Act of 1966, as amended, Executive Order 11593 (Protection and Enhancement of the Cultural Environment) and the Archaeological and Historic Preservation Act of 1974. The study includes both a field survey and a historic documents review.

Field investigations and archival research were conducted by Southeastern Archeological Services, Inc. personnel between February 3 and 17, 1984. Chester B. DePratter served as Principal Investigator. Field investigations were conducted by W. Dean Wood, Chad O. Braley, Thomas H. Gresham, Osman Mohammed, and Hussein Ahmed. Archival research was conducted by Roy Doyon and Chester B. DePratter.



Southeastern Archeological Services, Inc.

Figure 1. Springfield Canal Project Area showing present extent of Springfield Canal.

RESEARCH DESIGN

Because the study area runs through a lowlying tract formerly associated with rice production and canal construction, historical and archeological resources on the original swampy land surface were expected to be limited in extent. Associated sites would have been on high ground adjacent to the low-lying swamps. Nineteenth and twentieth century fill operations have covered over much of that original surface and have reduced the former course of the Savannah and Ogeechee Canal to approximately one-fifth its former width.

Given this knowledge concerning the past history of the Musgrove Creek-Savannah and Ogeechee Canal-Springfield Canal corridor, a relatively simple research design was formulated and implemented.

A search of historical documents and maps was made to determine what, if any, significant historical or archeological resources fell within the project area. A check of the State of Georgia Archeological Site Files was made to identify known archeological sites.

Once the historical documents survey and the site file check were made, field survey was begun to check those features within the project area identified as potentially significant. Examples of such features include locks on the former Savannah and Ogeechee Canal, the two nineteenth century Central of Georgia Railroad bridges, and the south end of Laurel Grove Cemetery. A walkover

survey along the entire canal corridor was conducted in an attempt to locate archeological sites exposed in the canal bank or on adjacent high ground. Post hole testing was employed to a limited extent as a site discovery technique, but use of that technique was discontinued due to the presence of extensive deposits of canal fill, compact and impenetrable soils, and abundance of recent historic period refuse.

HISTORICAL BACKGROUND

When James Oglethorpe chose Yamacraw Bluff as the site of his settlement in 1733, he failed to foresee the problems that the surrounding marshland would have on the future inhabitants. The Bluff, offering the advantages of high ground, a source of fresh water, accessibility to South Carolina and, most importantly, a defense against Spanish incursions, served Oglethorpe's purposes well. In addition, a friendly tribe of Yamacraw Indians was located a short distance west of the settlement, providing a link to the established trade in the area.

The land on the northwestern edge of Yamacraw Bluff was set aside for the Indians and came to be known as the Yamacraw Tract. This tract is indicated on several historical maps of early Georgia. On S. Urlsperger's 1741 map of "The County of Savannah", the tract is labelled "Indian Lands". The tract is visible on John Wilson's 1799 "Plan of the Town of Savannah" and on John McKinnon's 1799 "Map of Savannah" and on his 1818 "Plan of the City & Harbor of Savannah". In the latter two cases, the tract is confined to the area between West Broad Street, Indian Street, Musgrove Creek, and the Savannah River (Figure 2). It is through this tract, formerly occupied by Tomochichi and his Yamacraw tribe, that the Savannah and Ogeechee Canal and the Springfield Canal would later flow to the Savannah River, although the Indians undoubtedly would have resided on the high ground portions of the tract outside of the project area.

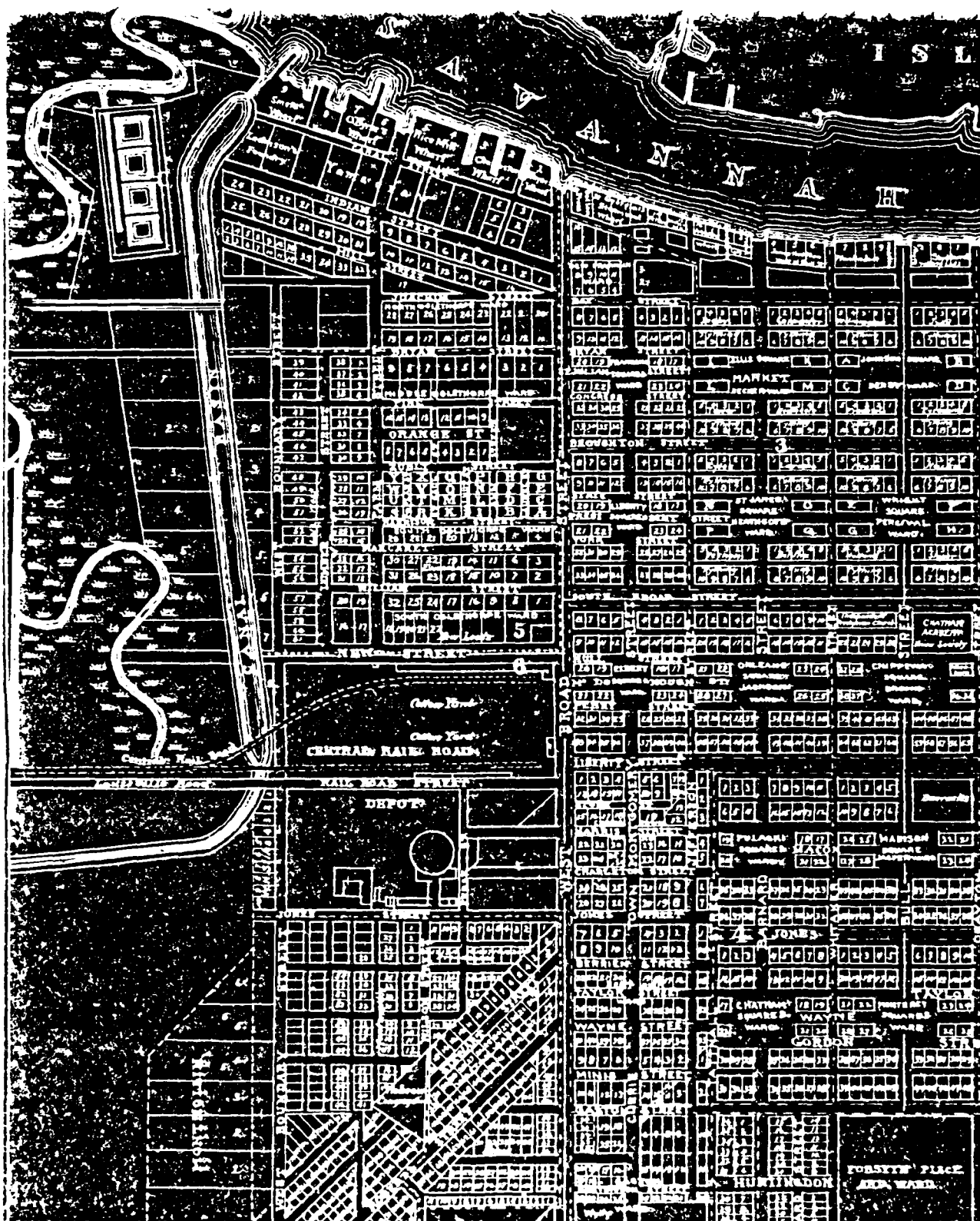


Figure 2. Portion of John M. Cooper's 1856 "Map of the City of Savannah."

The City of Savannah expanded slowly and many of the problems posed by the surrounding marshland were not immediately apparent to the colonists, although malaria was a serious problem from an early date (Spaulding 1977:40). The Yamacraw settlement was shortlived, and by the time of Tomochichi's death in 1739 these Indians had migrated to more amenable surroundings.

Development of the Plantation Economy

In 1754, the Trustees having surrendered their charter, Georgia became a Royal Colony and the laws regulating landholding (limited under the trustees) became more liberal. In 1762 an Indian trader, Lachlan McGillivray, owned two large plantations adjacent to Musgrove Creek--the Vale Royal and Springfield Plantations (Granger 1947:454). The Vale Royal Plantation was a 1000 acre tract bound on the east by what is now Fahm (then Farm) Street, on the north by the Savannah River, and on the south by the Old Augusta Road (Figure 2). Much of the Vale Royal tract was in low, swampy land along Musgrove Creek (Houstoun map, 1812). The Springfield tract, containing 455 acres, was adjacent to the Vale Royal tract, occupying higher ground to the west of Musgrove Creek (Hogg map, 1876). McGillivray cultivated rice on the Vale Royal Plantation and raised stock and provisions on the Springfield Plantation. There is no direct archival evidence on this point, but it can safely be presumed that McGillivray's rice fields were within the project area along Musgrove Creek. It is unlikely that any structures were constructed in the swampy lands now occupied

by the Springfield Canal. McGillivray's plantations were economically successful, enabling him to make significant improvements to his property (Granger 1947:456).

The Revolutionary War disrupted the agricultural activities in the project area. McGillivray, a Loyalist, returned to his native Scotland in 1770, and during the war his plantations were confiscated by the rebel government. In 1778 a skirmish between the American and British forces occurred within the project area. Outnumbered, the Americans attempted to retreat across Musgrove Creek at the site of the present Bay Street Extension viaduct. The British, however, blocked this route and 30 Americans, forced in the direction of the confluence of the Savannah River and Musgrove Creek, drowned attempting to escape through the Vale Royal rice fields (Granger 1947:458).

McGillivray's confiscated lands along Musgrove Creek were purchased by Joseph Clay in 1782. Clay, a prosperous Savannah merchant prior to the Revolution, was an active participant in the war, serving as paymaster-general of the Continental Army (Southern Department) and as a member of the Continental Congress (Granger 1947:458). By 1785 Clay had amassed a valuable and extensive tract of land that stretched from the western edge of Savannah at the Savannah River to the Ogeechee Road. Clay turned the high ground of the Springfield Plantation into rich cotton fields and re-introduced rice cultivation into the Vale Royal lowlands (Stouf map, 1818). When Clay died in 1804 his estate was valued in excess of \$276,000.00 (Clerk of the Probate Court Office 1804: B:519). That part of Clay's estate consisting of the Vale

Royal and Springfield Plantations passed to his son-in-law, Joseph Stiles. Stiles continued to cultivate rice on the Vale Royal tract, which at the time was highly profitable.

Cartographic evidence (John McKinnon map, 1818; McKinnon and Wright map, 1820) indicates that lowlying land south of the Louisville Road and adjacent to Musgrove Creek on Springfield Plantation was not utilized for rice cultivation. This poorly drained area was above the normal tidal flow and, therefore, not appropriate for effective wet cultivation of rice.

Dry Culture: A Transitional Period

Swamplands adjacent to the City of Savannah generally were perceived as creating an insalubrious atmosphere and causing numerous deaths from fever (Meade 1980). In 1817 the city passed a Dry Culture Law which prohibited the wet cultivation of rice within three miles of the city limits. In 1818 Joseph Stiles contracted with the city and agreed not to cultivate 222 acres of prime rice land along Musgrove Creek. On the 1818 and 1820 McKinnon maps these fields are labelled "Old Rice Fields". However, the city had continual problems with Stiles honoring the terms of the contract and not until 1834 did they succeed in prosecuting Stiles in court (Gamble 1900:146). Although Stiles stopped cultivating rice in the designated fields, he failed to properly drain them in accordance with his agreement with the city, although the McKinnon map of 1825 does show a canal following the course of the present Springfield Canal. Stiles died

in 1838 opening the way for the city to purchase the Springfield tract from his heirs (Gamble 1900:205). The 963 acre Springfield tract was purchased by the city in 1850, and drainage of the tract's lowlands began in earnest. The plantation was subdivided into small house lots with the exception of a segment of the tract on high ground west of Musgrove Creek which was set aside for a cemetery (Laural Grove). The purchase of the Springfield Plantation by the city brought the period of agricultural land use in the project area to a close. The evolution and expansion of the City of Savannah determined the character of the project area and its consequent land use.

The poor drainage of the project area and its perceived insalubrity discouraged residential development along Musgrove Creek. The project area, however, did favor certain types of urban development which could take advantage of the topography and the lower land values resulting from a lack of suitability for other uses.

The Savannah & Ogeechee Canal and the Central Railroad

A series of land cessions by the Creek Indians following the Revolutionary War opened vast areas of Georgia for settlement. Settlers migrated north and westward from the coast and by 1820 had pushed to the Ocmulgee River. Land lotteries provided land for eager settlers and facilitated the rapid settlement of the interior. Cotton cultivation was quickly established in the newly settled area of the Piedmont and upper Coastal Plain.

River navigation was the primary method of shipping produce to market. Pole boats and flat boats were the main types of river craft used for this purpose. Since there was not a deep water seaport at the mouth of the Ogeechee River, trans-shipment from there was necessary. Goods had to be transferred to small oceangoing craft capable of intra-coastal navigation, or unloaded and shipped overland to bring them to the deep water port of Savannah. This break of bulk was inconvenient and greatly increased transport costs. The Savannah and Ogeechee Canal was constructed to overcome these problems.

Ebenezer Jenckes was granted a charter by the State Legislature of Georgia in 1824 for the proposed canal from Savannah to the Ogeechee (State of Georgia, 1824:101). The idea for such a canal, however, had been conceived at least four years prior to the granting of the charter. The McKinnon and Wright Map of 1820 clearly indicates the path of the "Intended Canal from the Great Ogeechee River".

One year after receiving his initial charter, Jenckes was authorized by the State Legislature of Georgia to continue the above mentioned canal to the Altamaha River. The Savannah, Ogeechee & Altamaha Canal Company was incorporated in December of 1826 by the State Legislature (State of Georgia, 1826:42). The company was capitalized at \$199,225 and construction began in 1828 (Cruger 1828). Construction costs were greater than anticipated (\$407,813), necessitating several loans including a \$44,000 loan from the State government (Savannah Morning News , August 8, 1883:4/1). The Georgia State Legislature, perhaps encouraged by

the example of New York State's Erie Canal, looked favorably upon the canal project and in 1831, despite the apparent financial difficulties of the canal company, authorized extension of the canal all the way to either the Flint River or the Chattahoochee River (State of Georgia, 1831:200). By 1840 the first segment of the canal was operational, and it traversed 16 miles to the Ogeechee River at a point about 37 miles from its mouth. Six locks were used with a total lift of not over 8 feet (Lemen 1912:8).

Two of the six locks along the canal fall within the present project area. Lock No. 1 was located at a point approximately 800 feet from the Savannah River. That lock, which was of brick construction, measured 145 feet in length and 30 feet in width. The gates were of wood (Lemen 1912:6). The 800-foot-long section of canal between Lock #1 and the river was brick-lined with a width of 30 feet and a depth of 8 feet (Lemen 1912:6).

Lock No.2 was located at the junction of the Savannah and Ogeechee Canal and the Springfield Canal. This lock was also of brick construction, with a length of 102 feet, a width of 18 feet and a lift of 3 1/2 feet. The Springfield Canal passed under this lock by way of three brick conduits (Lemen 1912:7). Width of the Savannah and Ogeechee Canal was variable. From Lock No. 1 at River Street to Bay Street, the canal was 150 feet wide at the top. From Bay Street to Louisville Road, it was approximately 100 feet in width. From Louisville Road west, the canal was 75 feet wide and had a depth of approximately 10.5 feet (Lemen 1912:7).

The canal proved less profitable than anticipated and the Savannah, Ogeechee, and Altamaha Canal Company was soon bankrupt.

In 1846 the canal was purchased by the Savannah & Ogeechee Canal Company which incorporated under that name in 1847 (State of Georgia 1847:141). The new company put the canal into good repair and ran it successfully. Two notable structures built during the antebellum period by the Savannah & Ogeechee Canal Company are still visible in the project area. The brick arch viaduct at the Louisville Road was built in 1852 and a second similar viaduct about 400 feet north of the first was constructed in 1859 (Chief Engineer of Savannah, map, 1905). Both of the viaducts were used to carry lines of the Central of Georgia Railroad.

During the antebellum period the chief products shipped on the canal were timber, shingles, staves, and rice, although cotton may also have been an important cargo (Savannah Morning News , June 23, 1865:4/2). In the aftermath of the Civil War, control of the canal passed to the Central of Georgia Railroad. The railroad company failed to do the necessary maintenance on the canal and by the 1890's it had fallen into disrepair. The chief product shipped on the canal in the postbellum era was probably timber.

Timber-holding basins, seen adjacent to the canal at the Louisville Road on the 1876 Hogg map and Koch's 1891 "Bird's Eye View" of Savannah (Figure 3) support this theory. In addition to navigation, the canal served several social functions. Blacks of the Baptist faith used the canal for baptisms, and Savannah youth used it as a swimming area (Harden 1934:38).

The Savannah and Ogeechee Canal did not fulfill the expectations of its founders, although it continued to operate into the 1890's. It had been designed to bring the produce of the

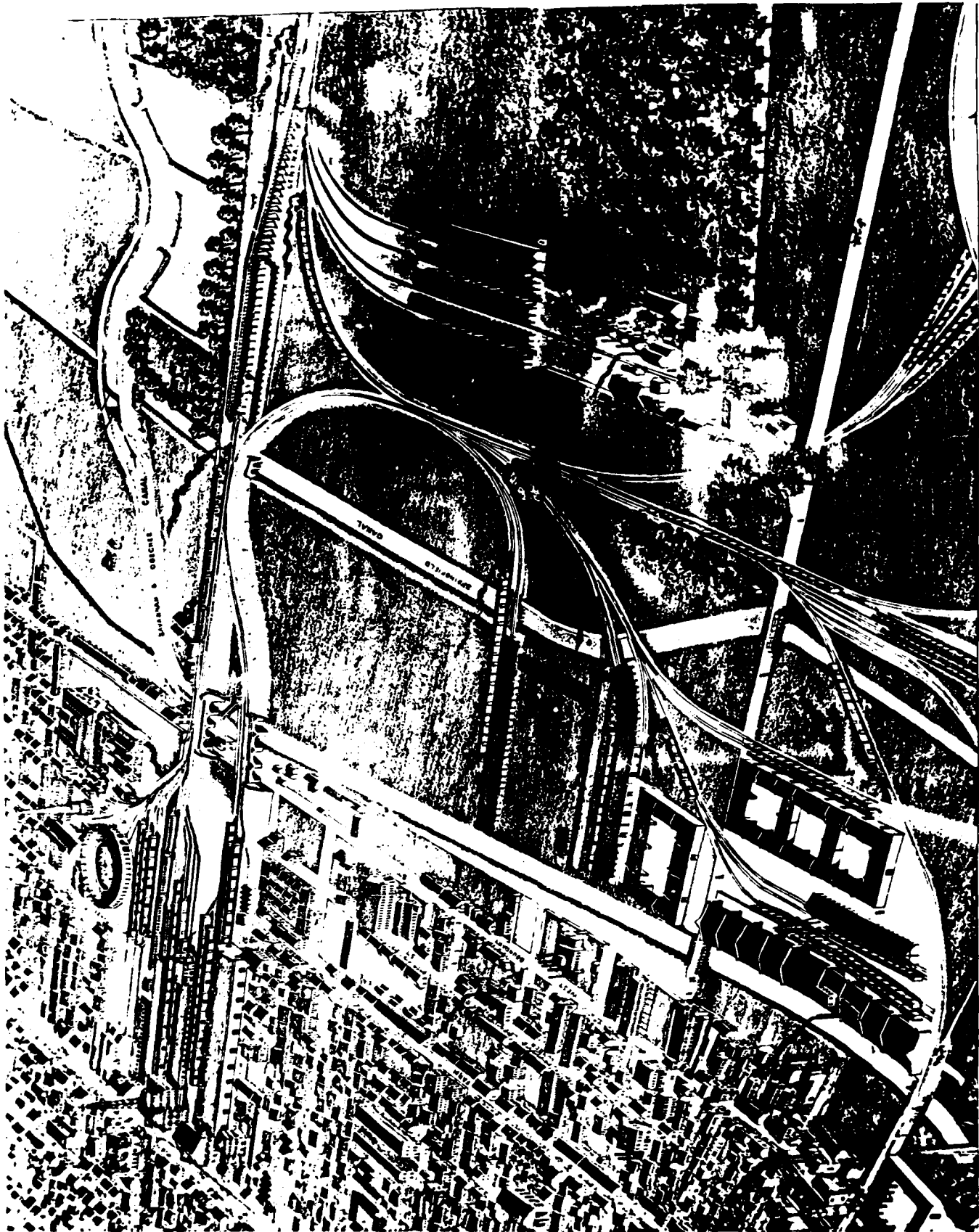


Figure 3. Part of Augustus Koch's 1891 "Bird's Eye View of the City of Savannah." View to south from Savannah River.

fertile interior to Savannah, but by the time of its completion, the railroad era had begun in Savannah, and with the railroads came competition. The construction of the Macon to Savannah railroad line began in 1828 and was finished in 1843. The railroad brought an era of prosperity to Savannah.

Between 1820 and the Civil War, Savannah emerged as the preeminent seaport of the state and developed its commercial and transportation systems accordingly. A comparison of the McKinnon & Wright "Plan of the City of Savannah" (1820) with the Cooper "Map of the City of Savannah" (1856) discloses land use development for this period in the project area (Figure 2). The largest and most obvious changes in this period are related to the development of transportation systems. The Central of Georgia Railroad facilities, most notably the depot, and the Savannah and Ogeechee Canal had become the dominant users of land in the project area. The lowlying area along Musgrove Creek was ideal for canal construction, although the canal route was dictated by the topography of the drainage basin. The availability of relatively cheap land adjacent to an "unhealthy swamp", and proximity to the Savannah and Ogeechee Canal were undoubtedly strong determinants in the choice of the Central Railroad depot site.

In the 1850's the city built a new water works in the project area north of Bay Street just west of the Savannah and Ogeechee Canal (Figure 2). Replacing an unhealthy system of shallow wells scattered throughout the city, the water works were filled by the action of the tidal flow up Musgrove Creek. These water works were the dominant source of water for the city until the 1880's when

they were replaced by a series of deep artesian wells (Gamble 1900:372-373).

The population of the city increased rapidly during the first half of the 19th century, and a large segment of this increase was composed of foreign immigrants, seventy percent of whom were Irish (Weaver 1953:2). By 1860 the white adult population of Savannah was half alien born. Housing was in short supply and immigrants drifted into slums on the periphery of the city. One of the more notorious slum areas was located near the Central Railway station on the western side of the city, adjacent to the project area. This slum was located within the Oglethorpe Ward and was bounded by Canal Street, West Broad Street, the Central Railroad Yard, and West Boundary Street (Figure 2). The Yamacraw tract, an area formerly inhabited by free Blacks, became the area of greatest concentration of foreigners (Weaver 1953:2). The only advantage of this area was its cheap rent. Disadvantages included poor sanitation conditions, proximity to swamps (i.e., malarial areas), and woefully inadequate housing. Oglethorpe Ward and the Yamacraw tract in particular "became notorious for its vice, filth, and general disorder" (Weaver 1953:2).

Prior to the Civil War, urban activity in the lowland project area was limited for the most part to those activities associated with the Savannah and Ogeechee Canal and the Central of Georgia Railroad Yard. Low elevation and poor drainage precluded most other uses.

The Commercial and Industrial Era

The Civil War halted the expansion of the City of Savannah. A "Bird's Eye View" of the city, painted in 1871 (Ruger 1871), indicates that the project area was, with the exception of the Savannah and Ogeechee Canal, little used. The chief problem with the area continued to be one of poor drainage. Health risks were the main concern, and justifiably so--as exemplified by the devastating Yellow Fever Epidemic of 1876. In the aftermath of that epidemic, a Commission of Drainage (Chatham County, 1877-1885) was established by the State Legislature and the principal drainage of the swamplands surrounding the city was undertaken (DePratter and Doyon 1984). As the systems of drainage were improved, industrial development was possible within previously uninhabitable lowlying areas. The transition of the area bounded by the Louisville Road, West Boundary Street, the Savannah River, and Musgrove Creek into industrial and commercial activities is clearly discernible on the Sanborn Fire Insurance Maps between 1884 and 1916. The Central Railroad further expanded its facilities into this portion of the study area (Figures 2 and 3). Little growth occurred in the project area during the economically depressed years between the two World Wars. After World War II expansion again occurred, this time primarily northwest of Musgrove Creek and south of the Louisville Road. Transportation systems continued to impact the project area with the construction of Interstate Highway 16 in the 1970s and the erection of the Talmadge Memorial Bridge in 1954. Residential development also has occurred adjacent to the project area

primarily in the form of housing projects aimed at accommodating lower income groups. The characteristics of the residential area along the western fringes of the project area in many ways resemble those of the Oglethorpe Ward in the antebellum era.

Development of Springfield Canal

The Springfield Canal, which derives its name from a colonial plantation, drains the Musgrove Creek basin. The canal was built piecemeal during a period of over one hundred years. Lowlying land on the western fringe of the City of Savannah was viewed as a health hazard during most of the nineteenth century due to the considerable amounts of stagnating water that accumulated there. Early inhabitants of the city believed that swamps were capable of producing germs or poisons which could infect the atmosphere and, subsequently, the local populace, through a variety of noxious fevers and diseases (DePratter and Doyon 1984).

Development of the Springfield Canal can be traced on 19th and 20th century maps of Savannah. Figures 4 through 7 contain information abstracted from several of these maps and superimposed on a map of the modern landscape for ease in interpretation. Taken together, these maps document the several developmental stages of the Springfield Canal.

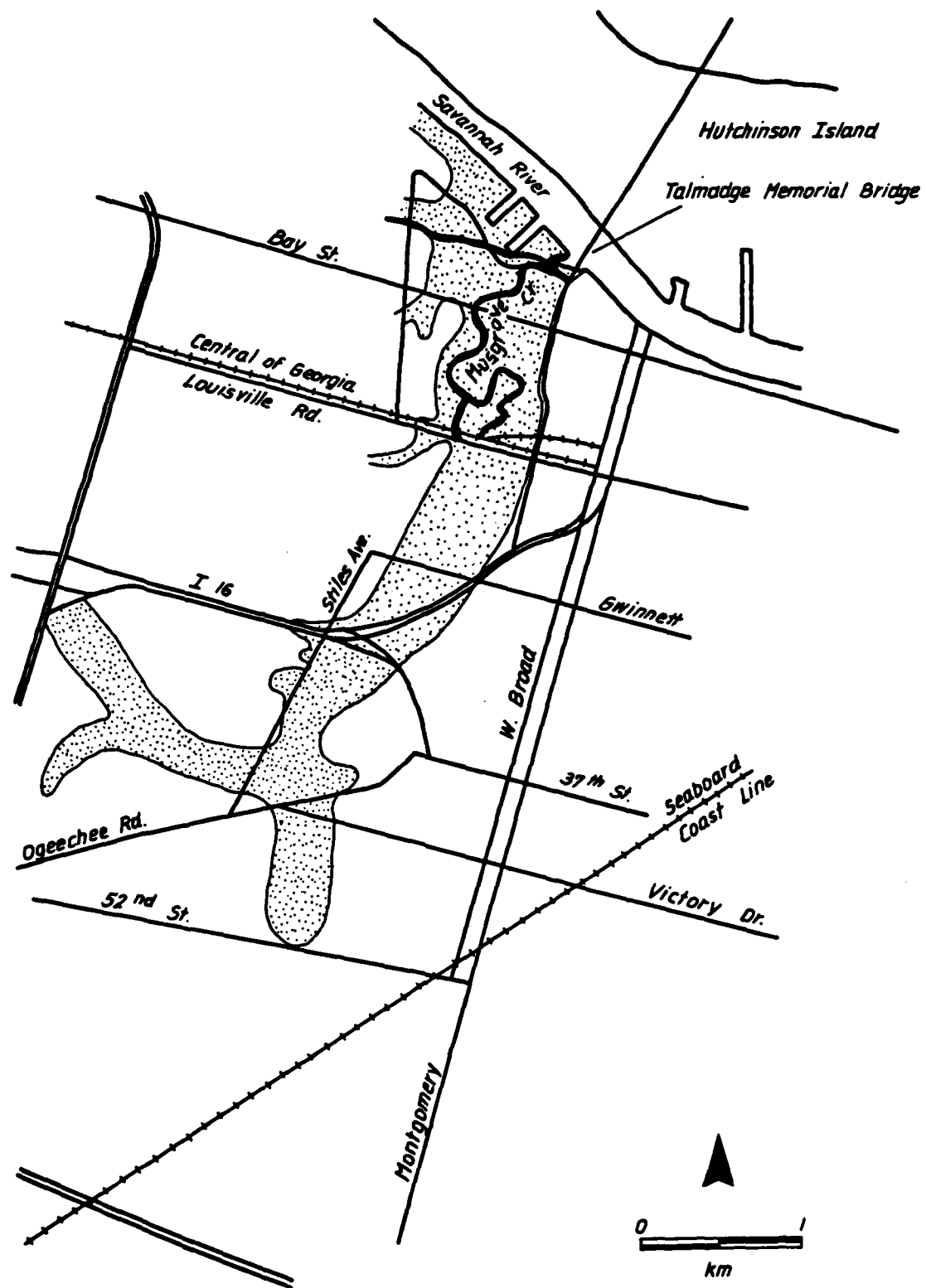
The Houstoun map, drawn about 1812, shows the lowlands adjacent to Musgrove Creek as a series of diked fields of varying size. Musgrove Creek is shown as having a meandering course

between the Augusta and Louisville Road (now Louisville Road) and the Savannah River, but its course is not shown farther south (Figure 4). The McKinnon map of 1801 does show part of the unmodified course of Musgrove Creek extending south of Louisville Road.

The 1825 McKinnon map also depicts the meandering course of Musgrove Creek extending from the mouth of the Savannah River to the south of Louisville Road (Figure 5). There is also a canal shown which extends from a meander of Musgrove Creek south through rice fields to a point near the present location of Interstate Highway 16. A dam is indicated near the south end of the canal. These same features are shown in incomplete detail on the McKinnon & Wright map of 1820 which also depicts the course of the "Intended Canal from the Great Ogeechee River".

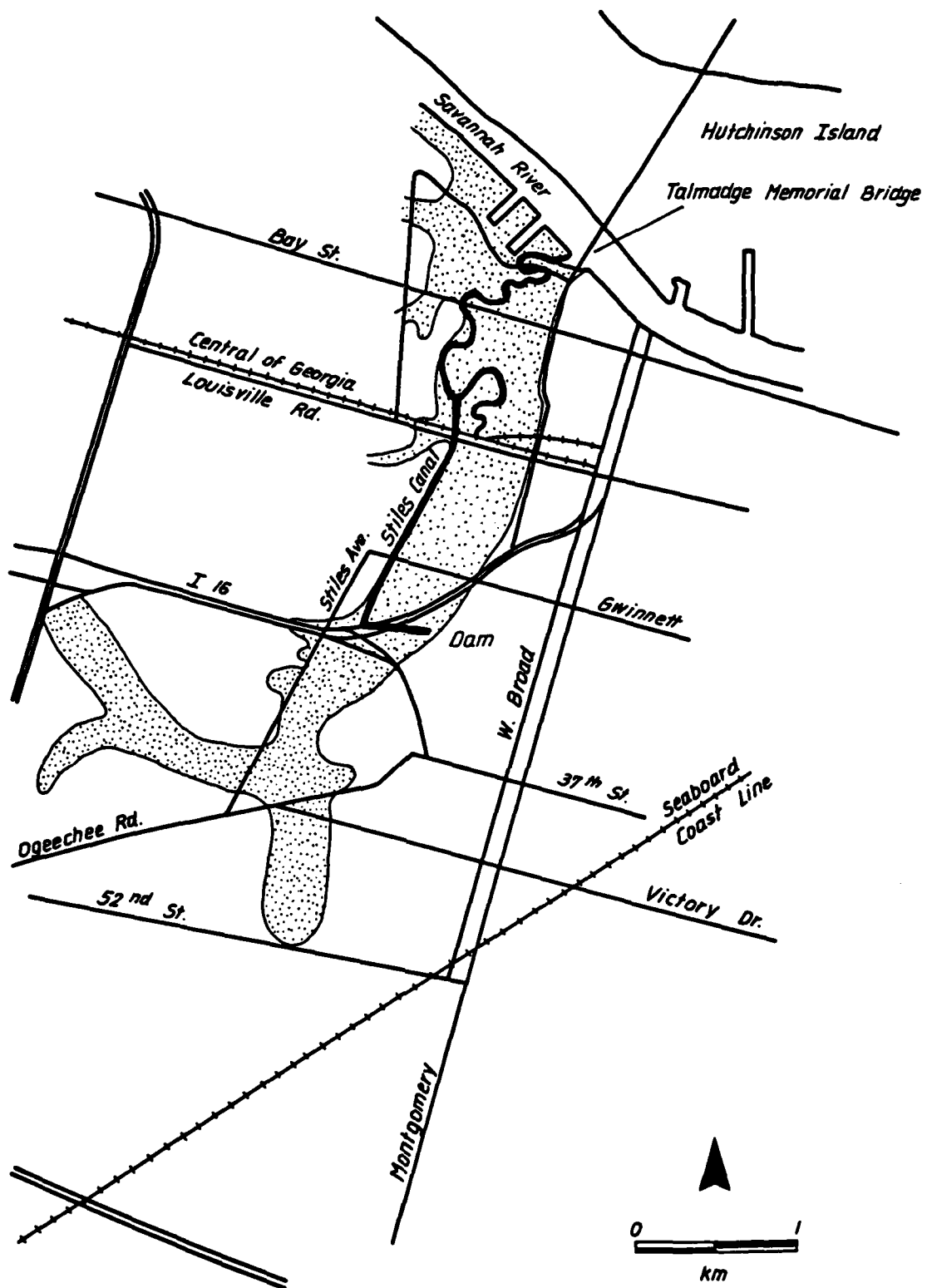
Maps as late as 1840 show Musgrove Creek still following its original channel north of Louisville Road, although the area south of that road was drained by Stiles Canal. The Colton (1855) and Cooper (1856) maps indicate that the canal was extended north across a large meander in the creek sometime between 1840 and 1855, but the course of the creek was still substantially unchanged (Figure 2).

In 1850, the City of Savannah purchased the Springfield Plantation, as previously noted, and drainage of its lowlands was one of the city's primary interests. Initial drainage efforts in the area were not totally successful. An earthen dam "having a base of sixteen feet, six feet in height, and six feet top, and



Southeastern Archeological Services, Inc.

Figure 4. Musgrove Creek as shown on "Map of the City of Savannah," by Col. Mossman Houstoun, c.1812.



Southeastern Archeological Services, Inc.

Figure 5. Musgrove Creek and Stiles Canal as shown on map entitled "City of Savannah," by John McKinnon, 1825.

running along the eastern margin of the Springfield Canal" was constructed shortly after the land was acquired (Mayor's Annual Report 1868). This left the former rice fields south of Louisville Road without drainage, so "a brick sewer was constructed on the east side of the Savannah and Ogeechee Canal, from the river to the northeast corner of that Springfield tract." According to the Mayor's Annual Report published in the Savannah Morning News (October 24, 1868:1/3-7), the sewer failed to drain the tract due to improper construction. In 1860 another effort was begun to drain the tract by construction of a sewer. This new Springfield Sewer, constructed of wood, began at "the mouth of the Ogeechee Canal, then went to the northwest corner of the water works, and from thence in an air line to the main central drain of the plantation, passing under the two tracks of the Central Railroad by a brick sewer and under the Ogeechee canal by a wooden trunk" (Savannah Morning News , October 24, 1868:1/4).

Completion of this sewer was delayed by the war, but work was apparently completed by May, 1870 as evidenced in the following report from the Savannah Morning News (May 17, 1870:3/4):

It has been usual to show up the Committee on Dry Culture by the unsatisfactory nature of its reports, until the wisdom of council provided a Dry Culture Inspector. We went over Springfield Plantation yesterday, and could not fail to note the grand changes which have been made in this city boghole within the past year. Where all was swamp, malaria, and death, there is now dryness, life, and value, due to the drainage being effected under the supervision of Alderman Davant, Chairman of the Dry Culture Committee. Let the improvements go forward, and Springfield Plantation will be the best property within the city domains.

The Springfield Sewer was not the only improvement in the

area at the time. A report by John Hogg, City Surveyor (Savannah Morning News , December 29, 1870:3/3) to Mayor Screven, describes work conducted in 1870:

The work in this department has been principally confined to the Springfield Plantation.

New ditches have been dug and the canal on the west side of the lowlands, known as the Springfield Canal, has been cleaned out and deepened.

The floodgate at the mouth of the canal, built in 1859, has been renewed down to the foundation.

Gates have been added to the syphon under the Ogeechee Canal to prevent any possible overflow from the river.

These improvements did not totally alleviate drainage problems on the Springfield tract, however. In 1872, emergency action was needed to provide drainage in the tract, as is illustrated in the following account (Savannah Morning News , August 9, 1872:3/2,3):

Superintendent Frank Blair of the Ogeechee Canal Company has had a warrant issued for the arrest of Major Munnerlyn, Inspector of Dry Culture, for malicious sic mischief. The Inspector cut an opening in the Ogeechee canal bank to draw water from Springfield Plantation, acting under orders from Mayor Screven and acting Mayor Haywood given some time ago, to be acted upon in time of necessity. The mayor gave bond in the sum of \$6,000.

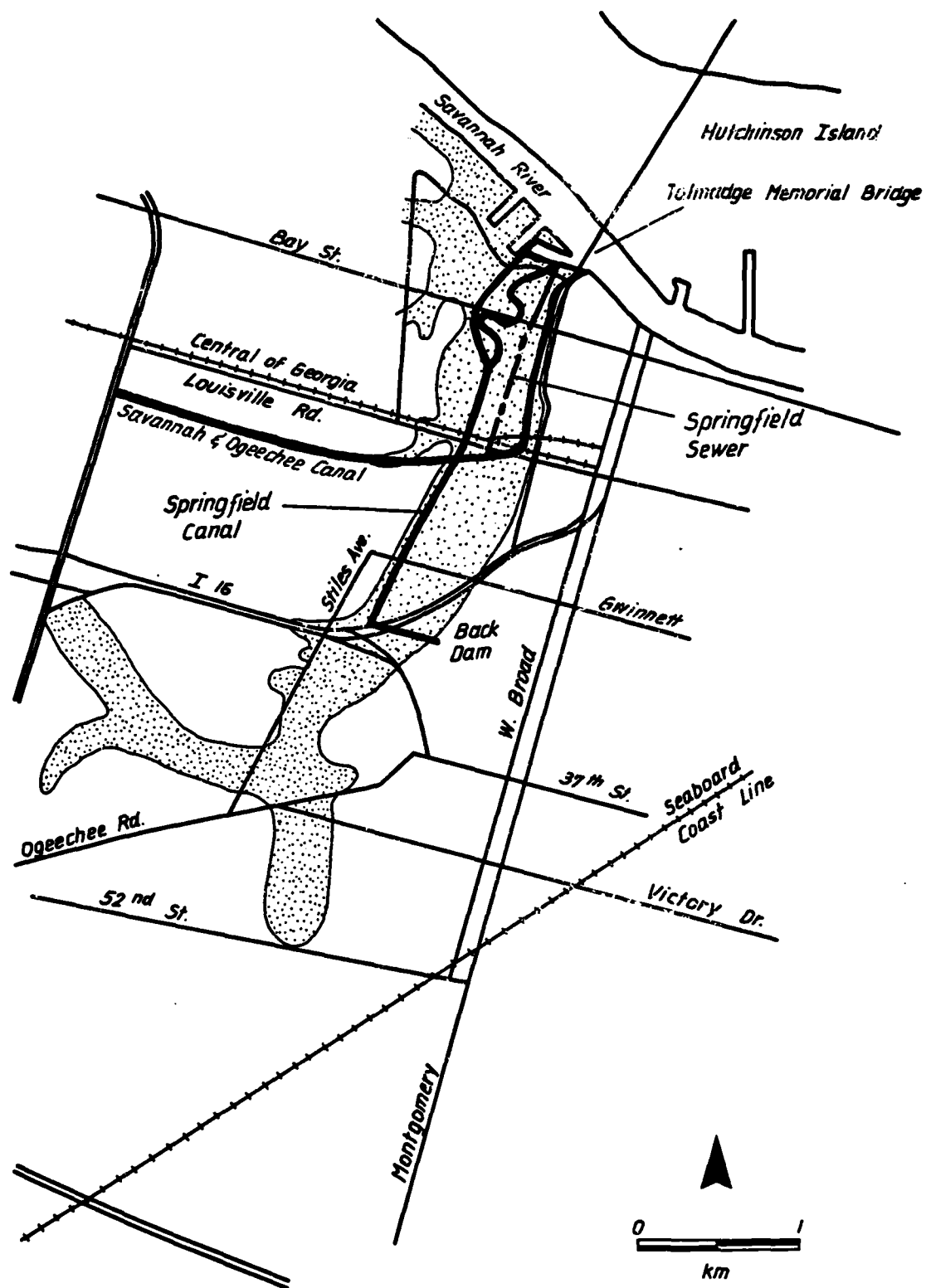
This is apparently the first instance where the Savannah and Ogeechee Canal was used to provide drainage for the Springfield tract.

In 1876, a Yellow Fever epidemic brought renewed work on the Springfield Canal. In that year, heavy spring and summer rains had flooded the Springfield lowlands, and large stagnant pools did not drain. The State Board of Health Report (1877:96) that followed the Yellow Fever outbreak indicated that the swamps of Springfield

had been in a particularly unhealthful state at the time.

The Board of Commissioners for Drainage, established in the wake of the 1876 epidemic, chose the drainage of the Springfield tract as their first chore. During this work, the meanders of Musgrove Creek were bypassed through excavation of "Musgrove Canal" along the western margin of the creek. The Springfield Canal was also widened between the Savannah and Ogeechee Canal and the Louisville and Augusta Road; the back dam at the southern end of the Springfield Canal was also repaired and strengthened (Savannah Morning News , April 10, 1877:3/3; Mayor's Annual Report 1877:56-57). All of these improvements, including the Springfield Sewer, are illustrated on the Hogg map of 1876 (Figure 6).

In 1891, R. A. Blandford, Chief Engineer of the Topographic Survey of Chatham County, presented his report on "The Proposed Drainage of the Watershed of Musgrove Creek" (Blandford 1891). In his report Blandford details the problems of draining the area and makes specific proposals for enlarging the Springfield Canal. The report contains a map that indicates that the canal still stopped at the backwater dam, approximately two miles from the river and about even with the mid-point of the Laurel Grove Cemetery. Blandford indicated that, based on his analysis of the precipitation characteristics of Savannah and the canal size, the canal would have to be enlarged to effectively drain the area. Blandford also recommended the use of brick or plank lining of the canal, which greatly enhanced the ability of a drainage canal to discharge water. Finally, Blandford recommended discharging the



Southeastern Archeological Services, Inc.

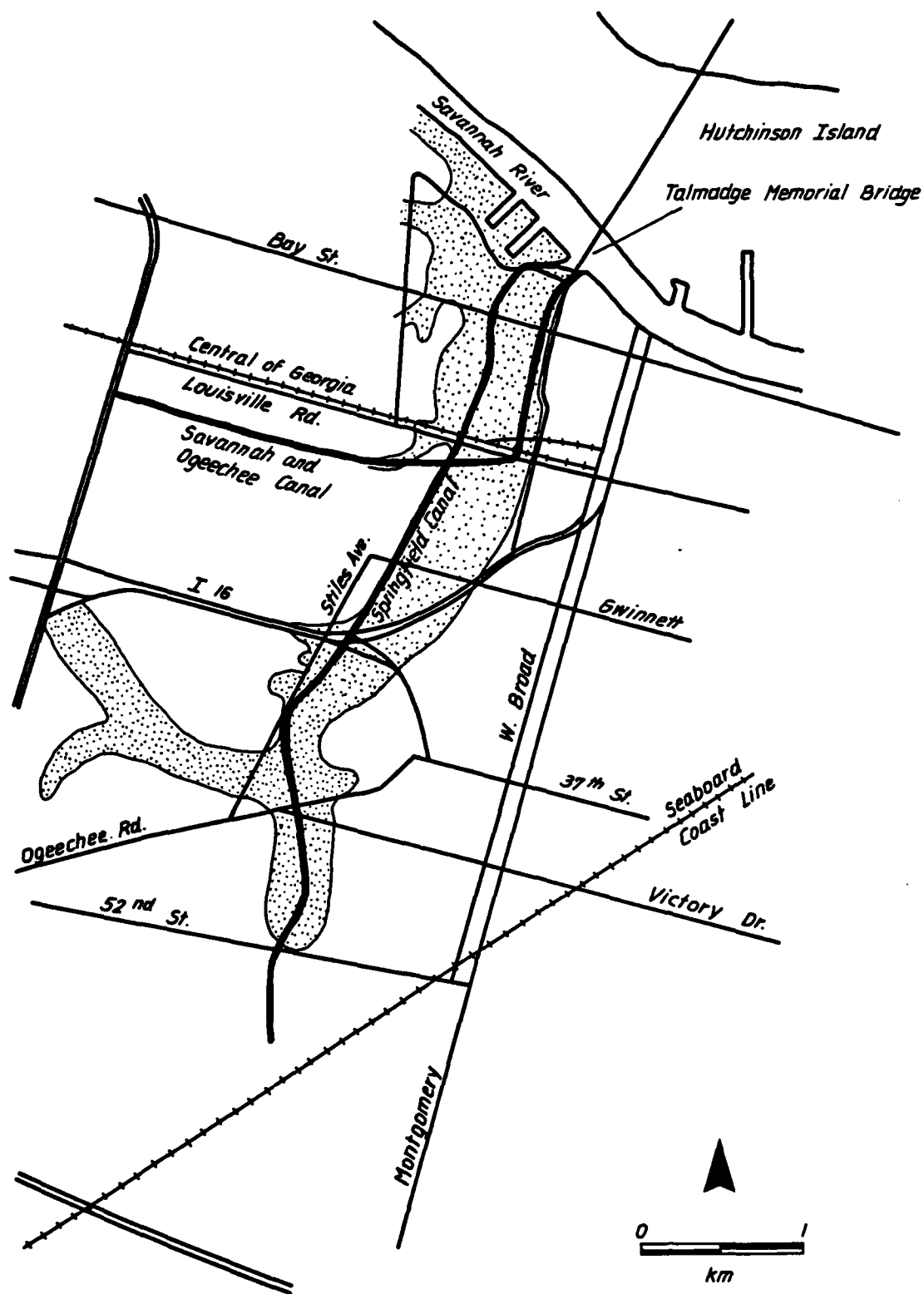
Figure 6. Springfield Canal and Savannah and Ogeechee Canal as shown on "Map of the City of Savannah, Ga.," by J.B. Hogg, 1876.

Springfield Canal directly into the Savannah and Ogeechee Canal directly below Lock #2 or Gay's Lock (Blandford 1891:24). By doing this, Blandford argued that the city would not have to renovate the section of the Springfield Canal between the Savannah and Ogeechee Canal and the Savannah River, saving a considerable sum of money.

By 1897, at least a portion of Blandford's plan had been implemented. A map by E. Thomas and others, published in that year, shows the Springfield Canal extending south along its present course to near the Seaboard Coast Line at Southover. The 1910 Howard map and the 1914 Gardner map (Figure 7) show the canal extending to the same point.

The date at which the Springfield Canal was diverted into the Savannah and Ogeechee Canal is uncertain. A 1945 map by A. E. King and Son shows that the Musgrove Creek portion of the Springfield Canal had been filled in for use by the Central of Georgia Railroad Yard. Because the railroad tracks are already in place on this 1945 map, filling of the canal and adjacent swamplands must have begun some years earlier. Additional modifications of the Springfield Canal system, including excavation of the tributary canals between Ogeechee Road and Interstate 16 and the extension of the system at its southern terminus, probably have occurred since 1945.

Currently, the drainage canals are maintained by the Chatham County Facilities Maintenance Department. Annual Maintenance consists of cleaning the canals with a drag line and spraying all canals twice a year during the growing season to inhibit the



Southeastern Archeological Services, Inc.

Figure 7. Springfield Canal and Savannah and Ogeechee Canal as shown on "Map of the City of Savannah," by J. Gardner, 1914.

growth of vegetation. On a weekly basis the tidal gates are checked to ensure that they are free of debris.

Laurel Grove Cemetery

Laurel Grove Cemetery (Figure 1) was apportioned out of the Springfield Plantation tract purchased by the city in 1850. The cemetery was laid out in accordance with plans submitted by a civil engineer, James O. Morse (Savannah Morning News , January 1, 1872:3/3). The northern portion of the cemetery was reserved for white Christians, the central portion for Jews, and the southern portion for Blacks (Gardner map, 1914). Between 1852 and 1901 an estimated 53,282 interments had taken place in the cemetery; 34,722 of those buried in that 49 year interval were Black.

Drainage, particularly in the southern portion of the cemetery, was a recurring problem. In 1873 the Keeper of the Cemetery reported that the recent construction of a drainage sewer through the cemetery was allowing him to dig graves deeper than was previously possible (Mayor's Annual Report 1873:101). This change may reflect the impact of the Springfield Canal. In 1890 the cemetery keeper reported that the cemetery, especially the Black portion, was over-crowded. He complained that the ground was insufficiently drained, causing burials to be too shallow and that because the area had been used for so long "when an interment takes place one or more coffins are disturbed" (Mayor's Annual Report 1890:130).

ARCHEOLOGICAL SURVEY

Archeological examination of the 4.7-mile-long Springfield Canal right-of-way (Figure 1) was conducted between February 3 and February 6, 1984, although historic research continued until February 17, 1984. Field examination of the project area involved an intensive pedestrian field survey as specified in the Scope of Work describing the project.

The entire 4.7 miles of canal were visited by members of the field crew. The field crew visually examined an area located with 100 feet on either side of the canal. Banks of the canal, spoil heaps, and exposed surface area in all portions of the right-of-way were examined. A limited number of posthole tests were excavated in a search for buried sites, but the presence of recent fill along much of the canal prevented discovery of such sites. Post hole testing was determined to be of no use in site discovery operations, and was thus discontinued after several tests provided no useful information.

The field survey recorded no prehistoric sites in the canal right-of-way, and a check of the State of Georgia Archeological Site Files housed at the University of Georgia indicates that there are no known prehistoric sites recorded within the canal corridor. This absence of prehistoric sites is not surprising, because most of the project area falls within a low swampy tract formerly drained by Musgrove Creek. Over ninety percent of the canal corridor has an elevation of less than five feet above mean

sea level, and the remaining portion is only a few feet higher.

No pre-twentieth century artifacts or habitation sites were recorded within the canal corridor. Again, this is because the area was and is, generally, too low and poorly drained for occupation without extensive filling and artificial drainage.

The canal corridor does contain a number of historic features, clustered in the northern quarter of the project area, that are worthy of further consideration. History of the development of Springfield canal was detailed in the previous section of this report (see Figures 4-7), but that history will be reviewed here briefly, because it is of importance in understanding the significance of the features noted.

Much of the project area was originally drained by Musgrove Creek. Beginning in the mid-eighteenth century, the area along Musgrove Creek was part of the Vale Royal and Springfield Plantations. Low-lying land along the creek was diked and used for wet (rice) or dry cultivation depending on local drainage. The Dry Culture Law of 1817 prohibited the cultivation of rice within three miles of Savannah in order to reduce the amount of unhealthy swamps surrounding the city. This law was apparently the impetus for the construction of a canal (Figure 5) by Joseph Stiles at some time prior to 1820 (see McKinnon and Wright map, 1820; McKinnon map, 1825).

In subsequent years, this canal was extended north, eventually bypassing the meanders of Musgrove Creek (Figure 6). At sometime between 1855 and 1868, the name of this artificial drain was changed from Stiles Canal to Springfield Canal.

Between 1824 and 1831, the Savannah and Ogeechee Canal was constructed. That transportation canal passed over the Springfield Canal at a point just south of the Louisville Road. At sometime during the first few decades of the twentieth century, the Springfield Canal was diverted into the channel of the former Savannah and Ogeechee Canal. This diversion occurred just to the east of Lock #2 near the former junction of the two canals. The abandoned channel of the Springfield Canal north of Louisville Road was subsequently filled and is not visible today.

In the early years of this century, the Springfield Canal was extended south of its former end point opposite the Laurel Grove Cemetery. Additional feeder canals were also excavated during this century to drain the area south of I-16.

Figure 8 shows the present course of the Springfield Canal in the former channel of the Savannah and Ogeechee Canal north of Louisville Road. Although the canal at present is narrow and crossed by many bridges of recent origin, the area shown was once within the "Canal Basin" of the Savannah and Ogeechee Canal (Figure 2). This basin, which was at least 100 feet wide at the time of construction, was used as a temporary docking and unloading location for boats using the Savannah and Ogeechee Canal. At one time, all or part of this basin was lined with wooden bulkhead, a portion of which can be seen in Figure 9a. This bulkhead may have been built following Blandford's (1897) recommendation, although it could be somewhat earlier. Lemen (1912:7) refers to this feature as "the warehouse bulkhead" which stretched along the west bank of the canal. Lemen (1912:7) further



Figure 8. View north along former Savannah and Ogeechee Canal from top of Central of Georgia Railroad overpass at Louisville Road.



Figure 9a. Wooden bulkhead along west bank of former Savannah and Ogeechee Canal north of Louisville Road.



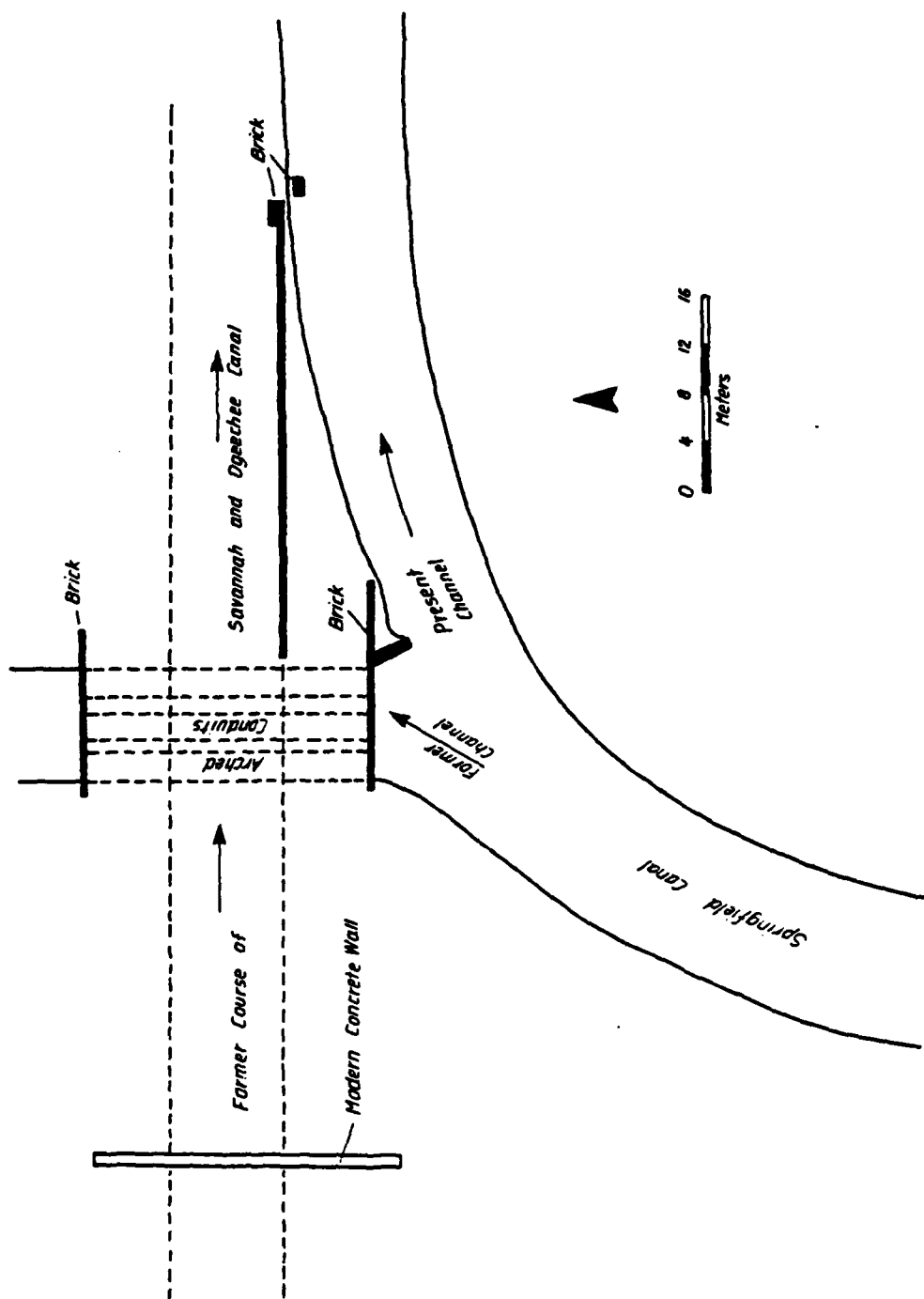
Figure 9b. Brick-lined canal segment between Lock #1 and Savannah River on former Savannah and Ogeechee Canal.

noted that the "Canal Basin" was "being badly filled by debris from the adjacent land." This fill could cover sunken barges or boats, although no evidence of such wrecks was observed during the present survey.

At the north end of this basin was Lock #1, which was 145 feet long and constructed of brick. Between that lock and the river was a brick bulkheaded segment of the canal described as being 800 feet long in 1912 (Lemen 1912:7), although that measurement may be in error. At present, the bulkheaded segment extends only about 200 feet north along the canal from Lock #1 (Figure 9b). This distance is similar to the canal plan shown on a 1905 map of the western part of the city (Office of the Chief Engineer, map, 1905). A wooden beam located at the south end of Lock #1 may be a surviving portion of the gate for this lock, though this seems unlikely given the amount of modification the canal has seen in the past century.

Lock #2, located at the junction of the Springfield Canal and the Savannah and Ogeechee Canals, is also partially preserved. The Springfield Canal was carried beneath the lock by three arched conduits (Figures 10 and 11a) which are still preserved. The eastern end of the lock (Figure 11b) and a portion of the retaining walls are also present, but not well preserved. During this century, the Springfield Canal was diverted into the Savannah and Ogeechee Canal channel just east of Lock #2 (Figure 10).

Despite the fact that neither Lock #1 nor #2 is completely preserved and the canal basin is partially filled, the Savannah and Ogeechee Canal represents an important episode in the history



Southeastern Archeological Services, Inc.

Figure 10. Plan of Lock #2, or Gay's Lock, at junction of Springfield Canal and Savannah and Ogeechee Canal.



Figure 11a. View of Lock #2 complex on Savannah and Ogeechee Canal as seen from north. Three brick conduits carried the water of the Springfield Canal under this lock.



Figure 11b. Portion of Lock #2 as seen from south.

of Savannah. The section of the Savannah and Ogeechee/Springfield Canal between Lock #2 and the Savannah River and both Locks #1 and #2 appears to meet the criteria for eligibility for nomination to the National Register of Historic Places.

That segment of the canal is also crossed by two other features having historical and architectural significance. Just north of Louisville Road, the canal is crossed by two lines of the Central of Georgia Railroad carried by brick arch viaducts (Figures 1 and 3). The southernmost of the two viaducts (Figures 12a and 13) was constructed in 1852, whereas the other (Figure 12b) was constructed in 1859. These two structures are part of the Central of Georgia Railroad Savannah Shops and Terminal Facilities, a Historic Landmark District (also known as the Savannah Revolutionary Battlefield Park). The numerous other bridges that cross this segment of the canal are recent in origin and have little or no historical or architectural significance.

Further south, the canal follows the old Stiles Canal channel (Figure 14a), passing through the southwestern corner of the southern part of Laurel Grove Cemetery (Figure 14b). This portion of the cemetery was reserved for use by Blacks. The Springfield Canal provides drainage in a lowlying area that may once have been used for burial (Mayor's Annual Report for 1890:130). The Laurel Grove Cemetery, north and south, is currently on the National Register of Historic Places, and, therefore, any work done on that segment of the Springfield Canal which passes through the cemetery should take into consideration the fact that a significant

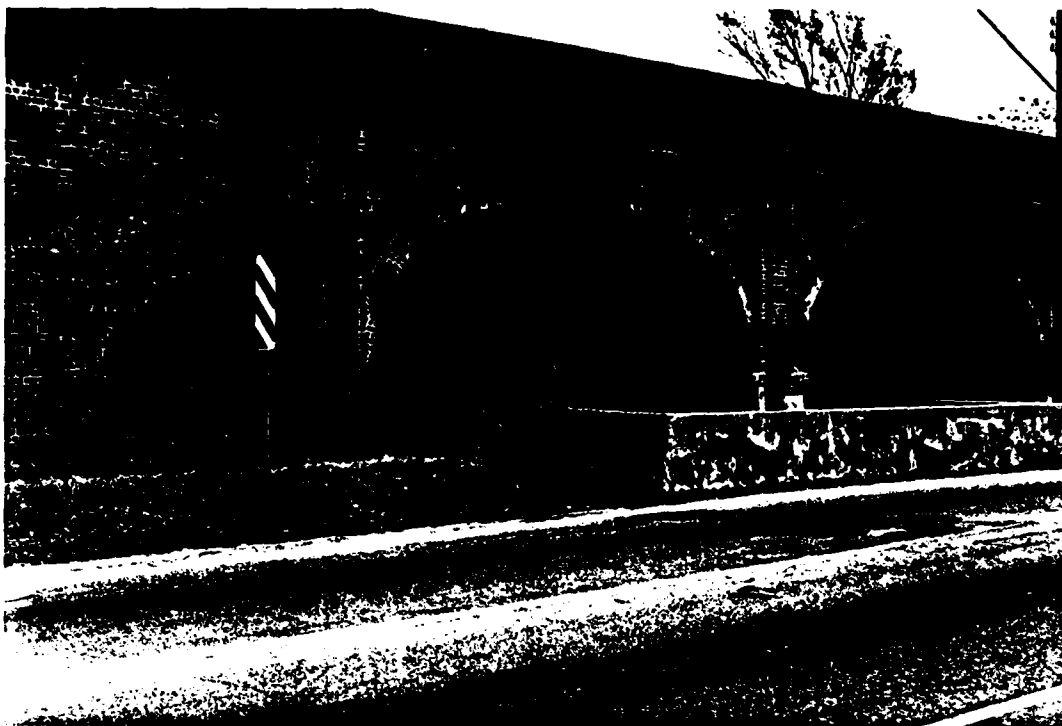


Figure 12a. South side of brick arch viaduct adjacent to Louisville Road; constructed 1852.



Figure 12b. South side of brick arch viaduct 400 feet north of Louisville Road; constructed 1859.

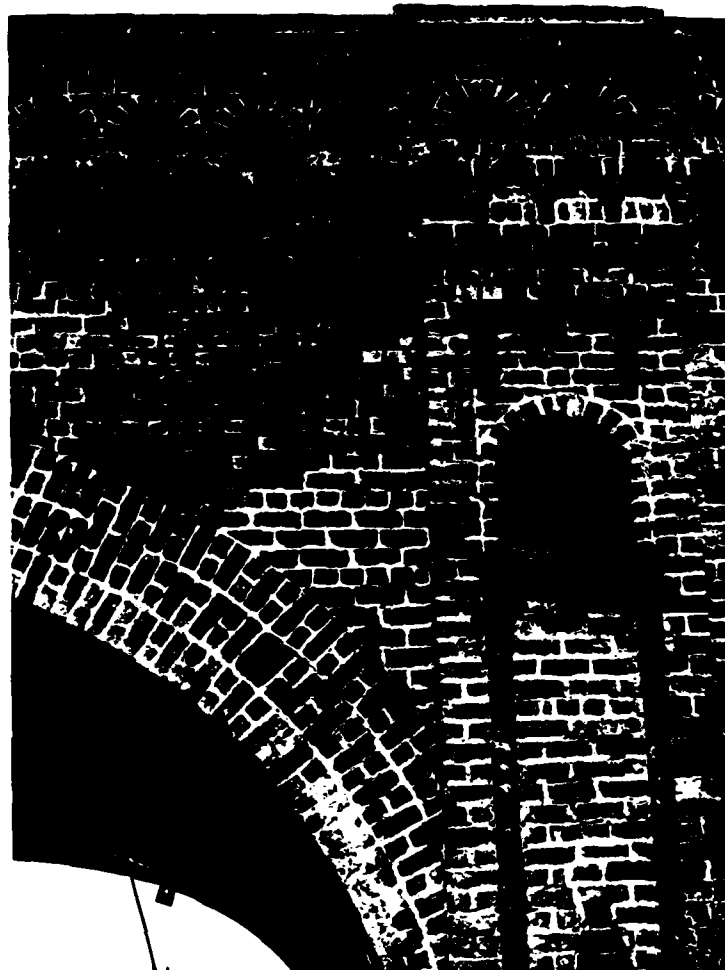


Figure 13. Construction detail of brick arch viaduct adjacent to Louisville Road; constructed 1852.



Figure 14a. View north along Springfield Canal from Gwinett Street.



Figure 14b. Laurel Grove Cemetery (south). Springfield Canal is immediately behind the photographer.

number of burials could be present in the low land adjacent to the canal.

Figures 15a and 15b show the Springfield canal in the area south of Laurel Grove Cemetery. This segment of the canal is of varying width and passes through both lowlying swamps and residential neighborhoods. The canal is crossed by several bridges of recent origin which severely impede its flow. None of these bridges has any historical or architectural significance.



Figure 15a. Ogeechee Road bridge as seen from Victory Drive.



Figure 15b. Springfield Canal south of 52nd Street.

PROJECT EVALUATION AND RECOMMENDATIONS

The project Scope of Work lists several possible alternatives aimed at alleviation of flooding along the Springfield Canal. Each of these alternatives will be considered separately for planning purposes.

Channelization

This alternative will be the most potentially destructive of significant cultural resources. Potential National Register of Historic Places properties including the Savannah and Ogeechee Canal with its associated bulkheading and locks would suffer adverse impact. The two mid-19th century railroad bridges could also be impacted if the canal beneath these arched structures were to be widened significantly. The channelization alternative could also disturb Black burials in the lowlying portion of Laurel Grove Cemetery (south) which abuts the Springfield Canal.

Levees

Construction of levees would involve most of the negative impacts of the channelization alternative, unless levee fill was trucked in rather than excavated from the canal corridor. This is particularly true in the Savannah and Ogeechee Canal segment and in the Laurel Grove Cemetery. It would also require extensive modification of numerous roadways and bridges, structures which lack historical or archeological significance.

Flood Plain Evacuation, Flood Proofing of Structures, and Flood Plain Zoning

None of these alternatives would have any negative impact on significant cultural resources within the Springfield Canal corridor. National Register properties adjacent to the Springfield Canal, including the Central of Georgia Railway Company Shop Property, the Central of Georgia Depot and Train Shed, and the Central of Georgia Railroad Savannah Shops and Terminal, would not be impacted by implementation of these alternatives, since, except for the two bridges, no structures are located on the low ground. The two mid-nineteenth century bridges would not be altered.

REFERENCES

- Blandford, R.A.
1892 Reports on the Proposed Drainage of the Watershed of Musgrove Creek. (In DeRenne Collection, University of Georgia Library, Athens, Georgia).
- Chatham County, Georgia
1877- Minutes of the Commissioners of Drainage. (Held at
1885 the Georgia Historical Society, Savannah, Georgia).
- Clerk of the Probate Court Office
1804 Appraisement Book B. Savannah.
- Cruger, Alfred
1828 Report on the Proposed Canal Connecting the Altamaha and Ogeechee Rivers. (In DeRenne Collection, University of Georgia Library, Athens, Georgia.)
- DePratter, C.B., and Roy Doyon
1984 A Cultural Resource Survey of Placentia Canal, Chatham County, Georgia. Southeastern Archeological Services, Inc., Athens, Georgia.
- Gamble, Thomas
1900 A History of the City of Savannah. Savannah.
- Georgia Board of Health
1877 Annual Report of the Board of Health of the State of Georgia. Atlanta.
- Granger, Mary (ed.)
1947 Savannah River Plantations. The Georgia Historical Society, Savannah.
- Harden, William
1934 Recollections of a Long and Satisfactory Life. (Reprinted in 1968 by Negro Universities Press, New York).
- Lemen, W.C.
1912 Report of Asst. Engineer W.C. Lemen, October 29, 1910. U.S. House of Representatives Document 1116, pp. 6-9. 62nd Congress, 3rd session.
- Mayor of the City of Savannah
1855- Annual Report of the Mayor of Savannah. (In DeRenne
1917 Collection, University of Georgia Library, Athens, Georgia).

Meade, Melinda
1980 The Rise and Demise of Malaria: Some Reflections on Southern Settlement and Landscape. Southeastern Geographer 20:2, pp. 77-99.

Office of the Clerk of the Superior Court, Chatham County
Deed Books. Chatham County Courthouse, Savannah.

Spaulding, Phinizy
1977 Colonial Period. In History of Georgia, edited by Kenneth Coleman, pp. 9-67. University of Georgia Press, Athens.

State of Georgia
1824- Georgia Laws. Atlanta.
1847

Weaver, Herbert
1953 Foreigners in Ante-Bellum Savannah. The Georgia Historical Quarterly 37:1, pp. 1-17.

Newspapers

Savannah Morning News (1856-1920).

Maps

Colton, J.H.
1855 The City of Savannah, Georgia. (Photostat, University of Georgia Map Library.)

Cooper, John M.
1856 Map of the City of Savannah. (Photostat, University of Georgia Map Collection.)

Gardner, J.
1914 Map of the City of Savannah. (Photostat, University of Georgia Map Library.)

Hogg, J.B.
1876 Map of the City of Savannah, GA. (Copy in University of Georgia Map Library.)

Houstoun, Col. Mossman
c.1812 Map of the City of Savannah. (Photostat, University of Georgia Map Library.)

Howard, John W.
1910 Map of the City of Savannah and Vicinity. (Photostat, University of Georgia Map Library.)

- King, A.E.
1945 City of Savannah. (Photostat, University of Georgia Map Library.)
- Koch, Augustus
1891 Bird's Eye View of the City of Savannah. Savannah, Published by the author. (Held by the Georgia Historical Society, Savannah, Georgia.)
- McKinnon, John
1799 Map of the City of Savannah. (Held by the Georgia Historical Society, Savannah, Georgia.)
- 1801 City of Savannah. (Photostat, University of Georgia Map Library.)
- 1816 Chatham County. (Held by Georgia Historical Society, Savannah, Georgia.)
- 1818 Plan of the City and Harbor of Savannah. (University of Georgia Library, Rare Book Room.)
- 1825 City of Savannah. (Copy in University of Georgia Map Library.)
- 1820 The Plan of the City of Savannah. (Held by Georgia Historical Society, Savannah.)
- Office of Chief Engineer, Savannah, Ga.
1905 Central of Georgia Rwy Co. Plan Showing the Savannah and Ogeechee Canal between Savannah River & Louisville Road. (Held in the City Engineer's archives, Savannah, Georgia.)
- Ruger
1871 Bird's Eye View of the City of Savannah. (Held by the Georgia Historical Society, Savannah, Georgia.)
- Sanborn Fire Insurance Map Company
1884, Savannah. (University of Georgia Map Library.)
1888,
1898,
1916

- Stouf, I.
1818 Plan of the City and Harbour of Savannah in Chatham County, State of Georgia. (Photostat in University of Georgia Map Library.)
- Thomas, Edward, and others
1897 Map of Part of Chatham County, State of Georgia, Showing Property Lines in Environs of Savannah. (Copy in University of Georgia Map Library.)
- Urlisperger, S.
1741 The County of Savannah. (University of Georgia Library Rare Book Room.)
- U.S. Army Corps of Engineers
1918 Savannah Quadrangle. Tactical Map, 1:62,500, Army Map Service, Washington, D.C. (reprinted, 1942).
- Wilson, John
1779 Plan of the Town of Savannah. (Map archives of Louis DeVorsey, Jr., University of Georgia, Athens, Georgia.)

APPENDIX A

PREHISTORIC OVERVIEW

The area around Savannah was first occupied by Indians at least by 12-15,000 years ago, although that date could have been somewhat earlier. Fifteen thousand years ago sea level was approximately 50 to 60 meters lower than present, and the shoreline was located approximately 90 to 100 kilometers east of Savannah Beach (DePratter and Howard 1980). The Savannah area, then, would have been little more than a high spot in the Coastal Plain, although proximity to the Savannah River might have made Yamacraw Bluff a desirable place to live. The Savannah River would have been more deeply entrenched and swifter than today due to increased stream gradient caused by lowered sea level, so most occupation sites may have been down off the bluff closer to the river.

Between 15,000 and 9,000 years ago, local fauna would have included modern species as well as extinct Pleistocene forms such as ground sloths, mastodons, and mammoths (Hodgson 1846; Couper 1846; Voorhies 1971). No archeological site has yet been found in the Southeast that has stone tools and remains of Pleistocene fauna in direct association, but such sites must surely exist. Occasional Paleo-Indian projectile points are found in the Savannah vicinity (Waring 1968c; 1968d).

These earliest Indian arrivals brought with them a hunting and gathering lifestyle that was employed with few major modifications or additions over the following several thousand years. Pleistocene megafauna, probably never very significant in the prehistoric diet, died off by 7,000 to 9,000 years ago. Deer,

small mammals and reptiles, and perhaps fish, would have been the main sources of meat; nuts, fruits, roots, and tubers would also have been important food sources (DePratter and Howard 1980).

Although archeological evidence is generally poor or lacking for this interval, residential groups between 15,000 and 5,000 years ago were generally small, involving single families or small bands of loosely associated families. Camp sites would have been temporary and small, rendering them difficult to find by archeologists given the low population density that must have existed at that time.

By 4,500 years ago, rising sea level had reached a point 1.0 to 1.5 meters lower than present (DePratter and Howard 1981). The shoreline and beach would have been located along the eastern margin of Wilmington Island, approximately 10 km closer to Savannah than the present beach on Tybee Island (DePratter and Howard 1977). The Savannah River at Savannah would have exhibited more estuarine features than it does today. Shell midden sites such as Bilbo (Waring 1968b), Deptford (Caldwell, McCann, and Cain, n.d.), and Refuge (Waring 1968e) and other unexcavated sites, provide evidence for the presence of marine shellfish and other estuarine species in the vicinity of Savannah between 3,100 and 4,500 years ago.

With the stabilization of sea level around 4,500 years ago came the first identifiable evidence for semi-permanent or permanent habitation sites. Sites dating between 4,500 and 3,100 years old consist of immense piles of shells and other refuse, including the well known shell rings (Waring 1968a; Waring and

Larson 1968; Marrinan 1975; DePratter 1976b). Subsistence during this interval continued to be through hunting and gathering with an overwhelming emphasis on marsh dwelling species of fish, shellfish, and crustaceans. The tool assemblage necessary to procure these resources included a simple array of bone awls and pins, occasional fishhooks, shell adzes for canoe construction, and stone spear points and knives (DePratter and Howard 1980:8). Pottery also became an important part of the assemblage at this time.

Social and residential units continued to be small, perhaps composed of 20-30 individuals. Shelters consisted of simple structures covered with brush, palmetto fronds, or woven mats. Burials are not known from this interval on coastal sites.

Between 3,100 and 2,400 years ago, sea level again dropped, and the shoreline would have been somewhere in the vicinity of Savannah Beach, thus placing the Savannah area farther from the coastline than it had been previously (DePratter and Howard 1977; 1981). Access to marine resources would have been more difficult for people living around present-day Savannah, and it is likely that they would have returned to the land-based hunting and gathering their predecessors had practiced thousands of years before (DePratter 1976a).

Absence of shell in sites dating to this interval (3,100-2,400 B.P.) make them difficult for archeologists to find. Waring (1968e) felt that sites of this interval did not extend south of the Savannah River. More recent research has demonstrated that such sites are present throughout the coast and coastal plain

of Georgia (DePratter 1976a; DePratter 1979). Little archeological research has been conducted in these elusive sites, so we know little of the lifestyle practiced during this time interval.

By 2,400 years ago, sea level was once again at or near present levels, and the coastal marshes once again obtained their former extent. The coastline at that time was approximately 15 km east of Savannah near Little Tybee Island (DePratter and Howard 1977).

Between 2,400 and 1,500 years ago, coastal populations returned to their emphasis on marsh and estuarine resources. The tool assemblage was quite similar to that developed and used between 4,500 and 3,100 years ago, but there were some important changes. Pottery became more durable and was made in a variety of forms, and the bow was introduced as an implement for increased efficiency in hunting and warfare (DePratter and Howard 1980).

Villages became more permanent, consisting of 10 to 20 houses located adjacent to creeks that provided direct access to the marsh (DePratter 1978). Houses were of wall post construction of several types (Milanich 1971). Village and mound burials both appear during this interval (Milanich 1971; Thomas and Larsen 1979). A limited array of burial associations, including projectile points, hammerstones, bone tools, quartz crystals, and mica, have been found to date.

The Deptford site (Caldwell, McCann, and Cain, n.d.), located in western Savannah, is a major site dating to this time period. Although it was extensively excavated by W.P.A. crews in the late 1930's and early 1940's, it has never been adequately reported. It

does contain a number of burials and evidence for several structures that may date to this interval.

Between 1,500 and 1,000 years ago, there was a dramatic change in coastal lifeways. Pottery, which was cordmarked, shared many similarities to types originating farther north (Caldwell 1958). Village plan and site distributions changed, so that access to marshes was no longer the only consideration in site choice (DePratter 1978; DePratter and Howard 1980). Horticulture may have been introduced to the coast during this time interval, although direct evidence is lacking (DePratter 1978; Larsen 1980).

Villages probably ranged up to 50-75 houses, although most were probably far smaller. Refuse was disposed of in individual refuse heaps distributed throughout the village. Village burials occur occasionally during this interval, and many of those burials which occur in mounds appear to be intrusive into earlier mounds (Thomas and Larsen 1979). Some mounds may have originated during this interval, however. Burial associations include pottery, pigment, and a variety of utilitarian implements (DePratter and Howard 1980).

Between 1,000 and 850 years ago, burial practices, particularly those associated with mound burial, became increasingly important. Larger, more elaborate mounds with additional quantities of grave goods were constructed (DePratter and Howard 1980; Larsen and Thomas 1982).

By 850 years ago, Indians around Savannah had reached a pinnacle in their development. This development is illustrated by the Irene site located at the mouth of Pipemaker's Creek west of

Savannah. That site was probably the central place of a small chiefdom (Service 1971) that centered around the mouth of the Savannah River and adjacent islands.

The Irene site (Caldwell and McCann 1941) contains a large platform mound which was constructed in several stages. The lower stages may represent earthlodges, but subsequent stages are undoubtedly residence platforms for the chief and perhaps other high-status individuals (DePratter 1983). A nearby burial mound contains the remains of a large number of individuals of varying status. These burials are accompanied by abundant pots, beads, celts, pipes, and other artifacts. The surrounding village site produced little archeological evidence for residential structures, but this may be due more to the archeological techniques of the time than to an actual dearth of structures (Caldwell and McCann 1941).

Subsistence continued to be based on a combination of hunting and gathering, with both estuarine and riverine resources contributing significantly. Agriculture may have also been a significant dietary feature, but hard archeological evidence on this question is lacking (DePratter and Howard 1980).

The Irene site continued to be occupied on into the following archeological period dating to 650-430 years ago, but there were many changes both at the Irene site and throughout the region. The Irene platform mound was covered over, and a council house was built nearby. This may represent a decline in chiefly authority associated with a breakdown in the previously existing chiefdom operating from the site (DePratter and Howard 1980; DePratter 1983).

A complex mortuary structure was identified at the Irene site, but no similar structures are known from elsewhere. More typically, burials, accompanied by a wide variety of implements, pots, beads, pigments, and other materials, were placed in accretional burial mounds located in major villages (Moore 1897).

There was probably an increase in population during this interval because there is a dramatic increase in the number of sites (DePratter 1974; Pearson 1979). This increase may relate to increasing dependence on agriculture and a more settled way of life (Larsen 1980).

In 1562 A.D. (422 years ago) Europeans began visiting the Georgia coast with increasing frequency. First the French (1562-1565) and then the Spanish (1565-1686) attempted to colonize and settle the Georgia coast. These European intrusions severely altered Indian lifestyles through missionizing, forced relocation, and devastating diseases. By the time Oglethorpe arrived on the Savannah River in 1733, only scattered remnant populations of Indians lived on the Georgia coast.

REFERENCES CITED

- Caldwell, J.R.
1958 Trend and Tradition in the Prehistory of the
 Eastern United States. American Anthropolog-
 ical Association Memoir 88.
- Caldwell, J.R. and C. McCann
1941 Irene Mound Site. University of Georgia Press,
 Athens.

- Caldwell, J.R., C. McCann, and H.T. Cain
n.d. The Deptford Site, Chatham County, Georgia.
University of Georgia Laboratory of Archaeology
Research Manuscript 272.
- Couper, J.K.
1846 On the geology of a part of the sea-coast of
the State of Georgia. In Memoir on the Mega-
therium and other Extinct Quadrupeds of the
Coast of Georgia, edited by W.B. Hodgson, pp.
32-50. Bartlett and Welford, New York.
- DePratter, C.B.
1974 An Archaeological Survey of Ossabaw Island,
Chatham County, Georgia: Preliminary Report.
University of Georgia Laboratory of Archaeology
Research Manuscript 344.
- 1976a The Refuge phase on the coastal plain of
Georgia. Early Georgia 4:1-13.
- 1976b The Shellmound Archaic on the Georgia Coast.
M.A. thesis, University of Georgia.
- 1979 Ceramics. In The Anthropology of St. Cather-
ines Island 2: The Refuge-Deptford Mortuary
Complex, edited by D.H. Thomas and C.S. Larsen,
pp. 109-131. Anthropological Papers of the
American Museum of Natural History 56.
- 1983 Late Prehistoric and Early Historic Chiefdoms
in the Southeastern United States. Ph.D. dis-
sertation, University of Georgia.
- DePratter, C.B., and J.D. Howard
1977 History of shoreline changes determined by
archaeological dating: Georgia coast, U.S.A.
Transactions of the Gulf Coast Association of
Geological Societies 27:252-258.

- 1980 Indian occupation and geologic history of the Georgia coast: a 5000 year summary. In Excursions in Southeastern Geology: The Archaeology-Geology of the Georgia Coast, edited by J.D. Howard, C.B. DePratter, and R.W. Frey, pp. 1-65. Geological Society of America Guidebook 20. Georgia Geological Survey, Atlanta.
- 1981 Evidence for a sea level lowstand between 4500 and 2400 years B.P. on the southeast coast of the United States. Journal of Sedimentary Petrology 51(4):1287-1295.
- Hodgson, W.B. (ed.)
1846 Memoir on the Megatherium and other extinct gigantic Quadrupeds of the coast of Georgia. Bartlett and Welford, New York.
- Larsen, C.S.
1980 Human skeletal and dental health changes on the prehistoric Georgia coast. In Excursions in Southeastern Geology: The Archaeology-Geology of the Georgia Coast, edited by J.D. Howard, C.B. DePratter, and R.W. Frey, pp. 192-201. Geological Society of America Guidebook 20. Georgia Geological Survey, Atlanta.
- Larsen, C.S., and D.H. Thomas
1982 Anthropology of St. Catherines Island 4: The St. Catherine's Period Mortuary Complex. Anthropological Papers of the American Museum of Natural History 57(4).
- Marrinan, R.A.
1975 Ceramics, Molluscs, and Sedentism: The Late Archaic Period on the Georgia Coast. Ph.D. dissertation, University of Florida.
- Milanich, J.T.
1971 The Deptford Phase: An Archaeological Reconstruction. Ph.D. dissertation, University of Florida.
- Moore, C.B.
1897 Certain aboriginal mounds of the Georgia coast. Journal of the Academy of Natural Science of Philadelphia (new series) XI.

- Pearson, C.E.
1979 Patterns of Mississippian Period Adaptation in Coastal Georgia. Ph.D. dissertation, University of Georgia.
- Service, E.
1971 Primitive Social Organization. Random House, New York.
- Thomas, D.H., and C.S. Larsen (eds.)
1979 The Anthropology of St. Catherines Island 2: The Refuge Deptford Mortuary Complex. Anthropological Papers of the American Museum of Natural History 56.
- Voorhies, M.R.
1971 The Watkins Quarry: A new Late Pleistocene mammal locality in Glynn County, Georgia (abstract). Georgia Academy of Science Bulletin 29:128.
- Waring, A.J., Jr.
1968a The Archaic and some shell rings. In The Waring Papers, edited by S. Williams, pp. 243-246. University of Georgia Press, Athens.
- 1968b The Bilbo Site, Chatham County, Georgia. In The Waring Papers, edited by S. Williams, pp. 152-197. University of Georgia Press, Athens.
- 1968c Fluted points on the South Carolina coast. In The Waring Papers, edited by S. Williams, pp. 241-242. The University of Georgia Press, Athens.
- 1968d Paleo-Indian remains in Georgia and South Carolina. In The Waring Papers, edited by S. Williams, pp. 236-240. University of Georgia Press, Athens.
- 1968e The Refuge Site, Jasper County, South Carolina. In The Waring Papers, edited by S. Williams, pp. 198-208. University of Georgia Press, Athens.
- Waring, A.J., Jr., and L.H. Larson, Jr.
1968 The shell ring on Sapelo Island. In the Waring Papers, edited by S. Williams, pp. 263-280. The University of Georgia Press, Athens.

END

FILMED

2-85

DTIC